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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALEX NAYSHTUT and OMER BEN-SHALOM

Appeal 2015-005862
Application 13/527,371
Technology Center 2400

Before DEBRA K. STEPHENS, AMBER L. HAGY, and
MICHAEL M. BARRY, *Administrative Patent Judges*.

HAGY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–9, which are all of the pending claims. We have jurisdiction over these claims under 35 U.S.C. § 6(b).

We affirm.

Introduction

According to Appellants, the invention pertains to “[s]ystems, apparatus and methods for periodically validating the identity of two or more machines that have established a secure communication connection over a network.” (Abs.) Appellants further state:

A client may initiate a secure communication session with a server by providing an identification certificate. Upon establishing a secure connection with the server, the client may periodically reaffirm its identity by sending a secure heartbeat message that includes a timestamp offset and a client identifier in order to keep the connection open. The server can require periodic receipt of the secure heartbeat message in order to maintain the secure communication session. The client identifier may include a code or value based on a unique physical attribute of the client. The timestamp offset may be calculated by the client based on a timestamp provided by the server.

(*Id.*)

Exemplary Claim

Claim 1, reproduced below with the disputed limitations italicized, is exemplary of the claimed subject matter:

1. At least one machine readable medium comprising a plurality of instructions that in response to being executed on a computing device, can cause the computing device to:

authenticate a communication session over a network between a first machine and a second machine;

establish both an identity of the first machine with the second machine, and a session identification for the communication session; and

periodically validate the identity of the first machine with the second machine over the network during the communication session, the validation including an identifying signature generated by the first machine based at least in part on the session identification;

wherein the second machine suspends the communication session in response to a failure to receive the identifying signature confirming the identity of the first machine.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Falco et al. ("Falco")	US 2005/0007964 A1	Jan. 13, 2005
Little et al. ("Little")	US 2008/0016537 A1	Jan. 17, 2008
Treu et al. ("Treu")	US 2010/0318578 A1	Dec. 16, 2010

REJECTIONS

Claims 1–4 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Treu and Falco. (Final Act. 2–3.)

Claims 4 and 9 stand, alternatively, rejected 35 U.S.C. § 103(a) as being unpatentable over Treu, Falco, and Little. (Final Act. 3–4.)

Claims 3–8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Treu, Falco, and Little. (Final Act. 3–4.)

ISSUES

(1) Whether the Examiner erred in finding Treu teaches or suggests “authenticate a communication session” and “establish both an identity of the first machine with the second machine, and a session identification for the communication session,” as recited in claim 1.

(2) Whether the Examiner erred in finding Treu, in combination with Falco, teaches or suggests “the validation including an identifying

signature generated by the first machine based at least in part on the session identification,” as recited in claim 1.

(3) Whether the Examiner improperly combined the teachings and suggestions of Treu and Falco.

(4) Whether the Examiner erred in finding Treu teaches or suggests “generate the identity of the first machine from a unique physical attribute of the first machine,” as recited in dependent claim 2, and “generate the identity of the first machine from a unique identifier obtained from a processor of the first machine,” as recited in dependent claim 3.

(5) Whether the Examiner erred in finding the combination of Treu, Falco, and Little teaches or suggests “wherein the second machine suspends the communication session in response to the failure to receive the message confirming the identity of the first machine within a predetermined period of time,” as recited in dependent claim 7, and “clos[ing] the communication session upon receipt of a message appearing to be from the second machine that fails to confirm the identity of the first machine,” as recited in dependent claim 8.

(6) Whether the Examiner erred in finding the combination of Treu and Falco, or the combination of Treu, Falco, and Little, teaches or suggests “establish[ing] an identity of the second machine at the first machine,” and “transmit[ting] a heartbeat message from the second machine to the first machine, the heartbeat message validating the identity of the second machine,” as recited in dependent claim 9.

(7) Whether the Examiner improperly combined the teachings and suggestions of Treu, Falco, and Little.

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments the Examiner has erred. We disagree with Appellants’ conclusions and we adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken (Final Act. 2–4) and (2) the reasons set forth by the Examiner in the Examiner’s Answer in response to Appellants’ Appeal Brief. (Ans. 2–6.) We concur with the conclusions reached by the Examiner, and we highlight the following for emphasis.¹

A. *“communication session” / “session identification” (claim 1)*

Appellants argue the Examiner’s findings are in error because “Treu does not disclose the identification or authentication of a ‘communication session’ as recited in claim 1.” (App. Br. 10.) In particular, Appellants argue a “communication session” is not contemplated by Treu “at least in part because Treu does not establish a ‘session identification for the communication session,’” as recited in claim 1. (*Id.* at 10–11)

We disagree. As the Examiner finds, and we agree, Treu teaches pairing a medical device with a remote user interface computer. (*See* Ans. 4.) In particular, Treu discloses “[t]he medical devices (102-106) communicate with the remote user interface computers (108-112) via links 107,” and the links may be “wired or wireless connections.” (Treu ¶¶ 22, 25.) Treu further teaches the wireless links may be via several well-known wireless communication protocols, including “Wi-Fi, Bluetooth, or

¹ Only those arguments made by Appellants have been considered in this decision. Arguments Appellants did not make in the briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

cell modem.” (Treu ¶ 32.) Treu further discloses “[t]he identification and pairing sequence . . . can be performed prior to beginning a treatment or monitoring session. The identification and pairing sequence can also be performed periodically *during a session*.” (Treu ¶ 30 (emphasis added).) Thus, the Examiner’s finding Treu teaches a “communication session” between a “first machine” (e.g., a medical device) and a “second machine” (e.g., a remote user interface computer), as recited in claim 1, is supported by the teachings of Treu.

With regard to the “session identification for the communication session,” also recited in claim 1, the Examiner finds, and we agree, Treu teaches “exchang[ing] handshake messages” between the medical device and the computer to “ensure that the devices remain connected correctly and the pairing remains intact.” (See Treu ¶ 37; Ans. 4.) Appellants argue, however, the Examiner’s finding is in error because Treu does not expressly mention “session identifier,” and further argue, in conclusory fashion, that the Examiner’s finding regarding the medical device exchanging handshake messages with the computer to ensure they remain connected during a communication session is “irrelevant.” (Reply Br. 2.)

We disagree. Appellants have not *explained why* the relied-upon disclosure does not teach or suggest the claimed feature under its broadest reasonable interpretation in light of the Specification; rather, Appellants merely allege that the feature is different because it is described in *different terms*. Cf. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990) (explaining that the comparison of references to the claimed invention “is not an ‘ipsissimis verbis’ test”). Appellants in particular do not explain why “handshake messages” exchanged using, for example, well-known wireless

communication protocols (such as Wi-Fi), would not include “session identification,” and, therefore, do not persuade us of Examiner error.

Appellants also argue “Treu does not disclose the establishment of an identity of a first machine with a second machine, *by a computing device*, as recited in claim 1.” (App. Br. 11 (emphasis added).) We are unpersuaded by Appellants’ argument because it is premised on an overly narrow characterization of Treu. As the Examiner finds, and we agree, “Treu discloses that in addition to the input sequence, the device transmits its identification number to be matched by the *remote user interface computer*, which *performs the pairing* (0039).” (Ans. 4 (emphasis added).) Treu also discloses “the model and serial number of the new device . . . could be *automatically detected* from the data stream” (Treu ¶ 91 (emphasis added).) Thus, regardless of whether the preamble is a limitation that requires “by a computing device” as argued by Appellants, one of ordinary skill understands that computing devices, such as the “remote user interface computer” disclosed in Treu, which constitutes a type of computing device, perform the pairing process. Accordingly, we are not persuaded Treu fails to disclose the disputed limitation.

B. “identifying signature . . . based at least in part on the session identification” (claim 1)

Appellants argue the Examiner’s findings are in error because neither Treu nor Falco discloses an “identifying signature,” as recited in claim 1. (App. Br. 11.) In particular, Appellants argue “[t]he Examiner admits that ‘Treu does not disclose signing the heartbeat message,’” and “the ‘heartbeat’ message discussed by Falco does not include an identifying signature generated based on a session identification, as recited in claim 1.” (*Id.*) To

the extent Appellants' challenge is based on Appellants' argument that Treu does not disclose a "session identification," we have addressed that argument in the previous section and found it to be unpersuasive.

Appellants' argument is also not persuasive because it argues the Treu and Falco references individually, when the Examiner's finding is based on a *combination* of these references. It is well established that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). In addition, a reference "must be read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole." *Id.*

Therefore, Appellants' arguments do not persuade us of error in these findings.

C. Motivation to Combine (claim 1)

Appellants also argue the Examiner has failed to provide "explanation or articulated reasoning" for combining Treu and Falco. (App. Br. 12.) Appellants further assert, in conclusory fashion, that Treu and Falco are "dissimilar" and "any combination of Treu and Falco would require a non-obvious modification of each reference's teachings to obtain the claimed subject matter." (*Id.*)

We recognize the Examiner must articulate "reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Here, the Examiner has articulated reasoning with some rationale underpinning, as to why an a person of ordinary skill in the art would have been motivated to combined

the teachings and suggestions of Treu and Falco, to achieve the claimed subject matter. (Final Act. 2; Ans. 3, 5.) Specifically, the Examiner finds it would have been obvious for one of ordinary skill in the art “to sign the handshake message of Treu,” as taught by Falco’s signed heartbeat message, “to ensure and maintain communication in a session” (Ans. 5) and also “to ensure authenticity.” (Ans. 3.) The Examiner also finds Treu’s handshake message “has the same stated purpose” as Falco’s signed heartbeat message. (Ans. 5.) Appellants have not provided persuasive evidence or reasoning explaining why such rationale is erroneous or why a person of ordinary skill in the art *would not* have reached the determination reached by the Examiner. Rather, Consequently, we are not persuaded that the Examiner failed to articulate sufficient rationale for combining the teachings of the cited references.

For the foregoing reasons, we are not persuaded of error in the Examiner’s 35 U.S.C. § 103(a) rejection of independent claim 1, or of dependent claims 4–6, which Appellants do not argument separately. We, therefore, sustain their rejection.

D. “generate the identity of the first machine” from a “unique physical attribute” (claim 2) / “unique identifier obtained from a processor” (claim 3)

Claims 2 and 3 depend from claim 1, and recite “generate the identity of the first machine *from a unique physical attribute* of the first machine,” and “generate the identity of the first machine from a *unique identifier obtained from a processor* of the first machine,” respectively. (App. Br. 18 (Claims App’x) (emphases added).)

With regard to a “unique physical attribute of the first machine,” as recited in claim 2, the Examiner finds Treu teaches an “RFID, ID device (0040), or even the identification number of Treu (0039),” which the Examiner finds “each read on a physical attribute of the machine.” (Ans. 5.) We agree. Treu discloses “[w]hen transmitting the verification key sequence, the medical device 302 could also *transmit its identification number*.” (Treu ¶ 39 (emphasis added).) Treu additionally discloses “[a]long with transmitting the verification key sequence, the medical device may also transmit *device identification information* such as device identification number, network address, serial number, or the like.” (Treu ¶ 36 (emphasis added).) Appellants’ argument that these “alleged attributes” are limited to identifying “a human operator or patient that may be interacting with a device” (Reply Br. 4–5) is not persuasive because it is inconsistent with Treu’s disclosure.

With regard to a “unique identifier obtained from a processor,” as recited in claim 3, the Examiner finds “the ID number of the machine (0039) reads on this unique physical attribute.” (Ans. 6.) Appellants argue this finding is in error because “the Examiner has completely failed to even allege that the ID was obtained from a processor.” (Reply Br. 5.) We disagree. As Treu discloses, the device may transmit its own device identification information. (Treu ¶¶ 36, 39.) Treu also teaches use of a “microprocessor” in the disclosed system (*e.g.*, Treu ¶¶ 112–114), and, thus, we agree with the Examiner Treu teaches the subject matter of claim 3—that is, a unique identifier obtained from a processor of the device (“first machine”). Appellants’ assertions do not demonstrate Examiner error, and in particular do not persuade us that the “device identification information”

that is transmitted by a microprocessor-based medical device, as taught by Treu, is not “a unique identifier obtained from a processor” of that device.

For the foregoing reasons, we are not persuaded of error in the Examiner’s 35 U.S.C. § 103(a) rejection of claims 2 and 3. We, therefore, sustain their rejection.

E. “suspending” / “closing” the “communication session” upon failure “to confirm[] the identity of the first machine” (claims 7, 8)

Claim 7 depends from claim 1, and recites “wherein the second machine suspends the communication session in response to the failure to receive the message confirming the identity of the first machine within a predetermined period of time.” (App. Br. 19 (Claims App’x).) Claim 8 also depends from claim 1, and recites “close the communication session upon receipt of a message appearing to be from the second machine that fails to confirm the identity of the first machine.” (*Id.*)

The Examiner finds “Little discloses using a heartbeat signal to maintain a pairing of devices (0047)” and also teaches “maintaining the pairing only as long as a valid heartbeat is received (0047),” and further finds “[i]t would have been obvious for one of ordinary skill in the art to use the heartbeat of Little in the system of Treu in view of Falco to monitor the pairing.” (Final Act. 3–4.)

Appellants argue “[t]he ‘heartbeat’ of Little merely discusses the maintenance of a pairing ‘so long as the heartbeat is received,’ and does not contemplate an identity confirmation or the difference between suspending and closing a communication session.” (App. Br. 14.) In response, the Examiner finds “once a session of Treu is closed, it can be resumed later (0030) as long as a new session is not started with another device (0038),

thus a closed session is suspended as well.” (Ans. 6.) Appellants then argue the Examiner’s findings are unsupported by evidence (Reply Br. 6), and otherwise present a conclusory assertion that Treu does not disclose the limitations of claims 7 and 8. (*Id.*)

Appellants’ arguments are not persuasive of Examiner error. First, Appellants’ assertion that Treu does not disclose suspending a session is unpersuasive. Treu teaches “the patient verification and device identification and pairing can be performed when a treatment or monitoring session stops or starts (*e.g.*, each time a new patient is being treated, or when a patient needs to stop treatment temporarily and resume treatment later).” (Treu ¶ 30.) As the Examiner finds, closing a session and then resuming that session amounts to “suspending” the session. (Ans. 6.) Also, Appellants’ arguments address the Little and Treu references individually and, thus, are not persuasive as they do not address the Examiner’s findings, which are premised on a *combination* of Treu, Falco, and Little. *See Keller*, 642 F.2d at 426.

For the foregoing reasons, we are not persuaded of error in the Examiner’s 35 U.S.C. § 103(a) rejection of claims 7 and 8. We, therefore, sustain their rejection.

F. “establish[ing] an identity of the second machine at the first machine,” and “transmit[ting] a heartbeat message from the second machine to the first machine, the heartbeat message validating the identity of the second machine” (claim 9)

Claim 9 depends from claim 1 and adds the limitations “establish an identity of the second machine at the first machine; and transmit a heartbeat message from the second machine to the first machine, the heartbeat

message validating the identity of the second machine.” (App. Br. 19 (Claims App’x).)

The Examiner relies on Treu in combination with Falco, and finds “Treu in view of Falco discloses the medium of claim 1, as outlined above, [and Treu] further discloses a heartbeat message (automatically generated signal, 0030).” (Final Act. 3.) The Examiner additionally rejects claim 9 over the combination of Treu, Falco, and Little, finding:

Even if [Treu’s] signal was not seen as a heartbeat signal, Little discloses using a heartbeat signal to maintain a pairing of devices (0047). It would have been obvious for one of ordinary skill in the art to use the heartbeat of Little in the system of Treu in view of Falco to monitor the pairing, a stated motivation of all references.

(*Id.*)

Appellants’ arguments are not persuasive of Examiner error. We agree with the Examiner that Little discloses bidirectional exchange of authentication and identification information. (*E.g.*, Little ¶¶ 46–47.) Thus, Appellants’ arguments directed at Treu do not address the Examiner’s finding that the combination of Treu and Little teaches the disputed limitation.

G. Motivation to combine (claim 9)

Appellants’ argument that the Examiner has failed to support combining Treu, Falco, and Little is an untimely argument presented for the first time in Reply. Further, is conclusory and unpersuasive. Appellants have not explained why, nor is it apparent that these arguments were necessitated by a new point in the Answer or any other circumstance constituting “good cause” for its belated presentation. (*See* 37 C.F.R.

§ 41.41(b)(2) (2016)). Nevertheless, the Examiner finds an ordinarily skilled artisan would have been motivated to combine the references to “monitor the pairing” of the devices, which the Examiner also finds is “a stated motivation of all references.” (Final Act. 3.) We are not persuaded that the Examiner failed to articulate reasoning with a sufficient rationale for combining the teachings of the cited references. Therefore, we are not persuaded the Examiner improperly combined the teachings and suggestions of Treu, Falco, and Little.

For the foregoing reasons, we are not persuaded of error in the Examiner’s 35 U.S.C. § 103(a) rejection of claim 9. We, therefore, sustain that rejection.

DECISION

For the above reasons, the Examiner’s rejections of claims 1–9 are affirmed.²

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

² Claims 1–9 are directed to a “machine readable medium,” but do not specify that the medium is non-transitory. Should there be further prosecution of this application (including any review for allowance), the Examiner may wish to review claims 1–9 for compliance under 35 U.S.C. § 101 in light of the Federal Circuit’s decision in *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007) and the Board’s decision in *Ex parte Mewherter*, 107 USPQ2d 1857 (PTAB 2013) (precedential).